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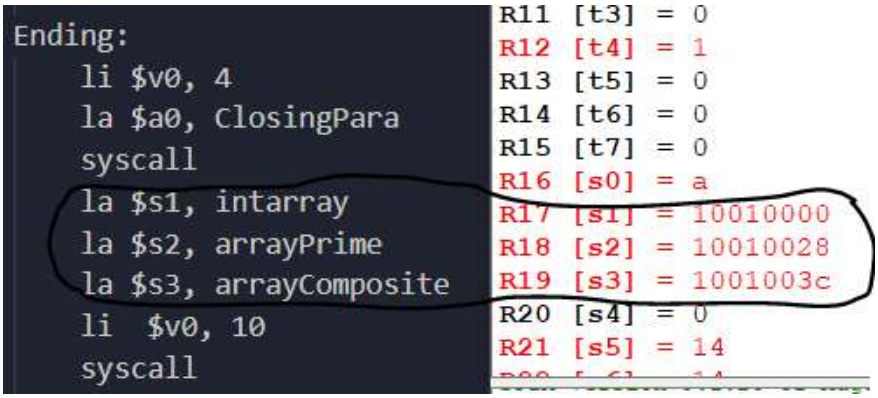
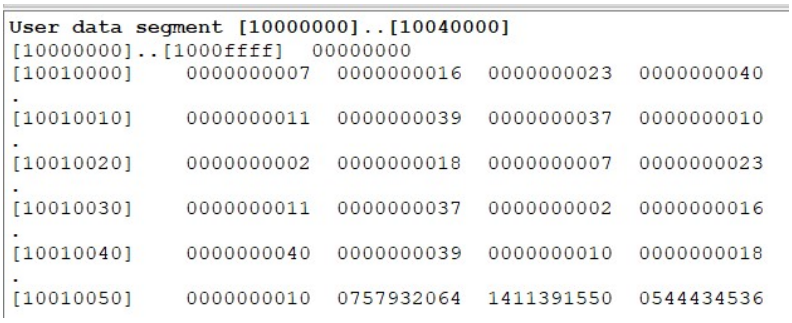
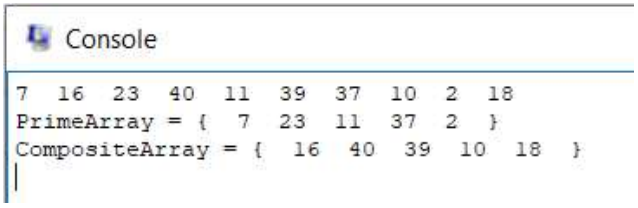
ECE 331 Project 1

10/14/2019




Address of Intarray (10010000) is stored in $s1. Address of arrayPrime (10010028) is stored in $s2. The difference between two address is 40 bytes = 10 words which is the same length of our Intarray. The difference between address of arrayComposite and arrayPrime is 20 bytes = 5 words which is also the same length of our arrayPrime.




In the picture above you can see the decimal values of each address and register as well as a console output for the original array and the Prime and Composite Array.

Start of Address of IntArray = 10010000

Start of Address of arrayPrime = 10010028

Start of Address of arrayComposite = 1001003c

Also note that in this project I did not use stack that was initialized in the given code. It turns out that I did not need them, instead I used arguments for functions and returned values.

Problems Encountered:

- I did not know how to debug using step by step process in Mips so I printed out everything on the console instead, but I learned how to do it later on during office hours
- Trouble with setting arguments and return values
- Understanding between jump and jump + link
- Looping with offset
- Setting values to indices in the new array

Sources:

http://courses.cs.vt.edu/~cs2505/spring2010/Notes/pdf/T23.MIPSArrays.pdf

https://www.youtube.com/watch?v=Vb8kuvxc4NE

https://github.com/alexdantas/mips-examples/blob/master/004-is_prime.s